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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO	
10/700,500	11/05/2003	Ryoichi Nakatani	ASA-350-07	6292	
24956 7:	590 09/09/2005		EXAMINER		
MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C. 1800 DIAGONAL ROAD			RENNER,	RENNER, CRAIG A	
SUITE 370	IAL KUAD		ART UNIT	PAPER NUMBER	
ALEXANDRIA, VA 22314			2652		
			DATE MAILED: 09/09/2005		

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)			
	10/700,500	NAKATANI ET AL.			
Office Action Summary	Examiner	Art Unit			
	Craig A. Renner	2652			
The MAILING DATE of this communication a Period for Reply	ppears on the cover sheet with the	correspondence address			
A SHORTENED STATUTORY PERIOD FOR REP WHICHEVER IS LONGER, FROM THE MAILING - Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory perions for reply within the set or extended period for reply will, by state Any reply received by the Office later than three months after the mail earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICATIO 1.136(a). In no event, however, may a reply be to ad will apply and will expire SIX (6) MONTHS from the cause the application to become ABANDON	N. imely filed in the mailing date of this communication. ED (35 U.S.C. § 133).			
Status					
1) Responsive to communication(s) filed on 19	****				
· -	<i>'</i> —				
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
closed in accordance with the practice under	г <i>Ex рапе Quayle</i> , 1935 С.D. 11, 4	153 O.G. 213.			
Disposition of Claims					
4) Claim(s) 23-33 is/are pending in the applicat 4a) Of the above claim(s) 23-26 is/are withdress 5) Claim(s) is/are allowed. 6) Claim(s) 27-33 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and	awn from consideration.				
Application Papers					
9)☑ The specification is objected to by the Examination 10)☑ The drawing(s) filed on <u>05 November 2003</u> is Applicant may not request that any objection to the Replacement drawing sheet(s) including the correction. The oath or declaration is objected to by the	s/are: a) ☐ accepted or b) ☑ object the drawing(s) be held in abeyance. So the ection is required if the drawing(s) is o	ee 37 CFR 1.85(a). bjected to. See 37 CFR 1.121(d).			
Priority under 35 U.S.C. § 119					
a) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority docume 2. Certified copies of the priority docume 3. Copies of the certified copies of the priority docume application from the International Bure * See the attached detailed Office action for a limit	nts have been received. Ints have been received in Applica Iority documents have been received in Portion (PCT Rule 17.2(a)).	tion No. <u>07/710,775</u> . ved in this National Stage			
Attachment(s)					
1) Notice of References Cited (PTO-892)	4) 🔲 Interview Summar				
 Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/0 Paper No(s)/Mail Date <u>05 November 2003</u>. 	Paper No(s)/Mail [b) Notice of Informal 6) Other:	Date Patent Application (PTO-152)			

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DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of "Species VIII, Fig. 16, including Claims 27-30," "New claim 31" and "New claims 32-33" in the replies filed on 29 April 2005 and 19 August 2005 is acknowledged. Accordingly, claims 23-26 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to one or more non-elected inventions/species, there being no allowable generic or linking claim.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copies have been filed in parent Application No. 07/710,775, filed on 05 June 1991.

Drawings

- 3. The drawings are objected to because of the following informalities:
- a. The drawings fail to comply with 37 CFR 1.83(a). Under 37 CFR 1.83(a), the drawings must show every feature of the invention specified in the claims.

 Therefore, the "perpendicular magnetic recording medium," set forth in line 3 of independent claim 27 and line 2 of independent claim 31, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
 - b. In FIG. 13, "(PRIOR ART" should be corrected to read --(PRIOR ART)--.

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Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filling date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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Specification

- 4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
- 5. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is

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requested in correcting any errors of which applicant may become aware in the specification.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 27-33 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-27 of U.S. Patent No. 5,390,061. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following:

The only item lacking in the patented claims is the magnetic head being used in combination with a "perpendicular magnetic recording medium." Official notice is taken of the fact that it is notoriously old and well known in the art to use a magnetic head with a perpendicular magnetic recording medium in the same field of endeavor for the purpose of increasing data storage capacity by enabling higher bit density. It would

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have been obvious to a person having ordinary skill in the art at the time the invention was made to have claimed the magnetic head be used in combination with a perpendicular magnetic recording medium. The rationale is as follows:

One of ordinary skill in the art would have been motivated to have claimed the magnetic head be used in combination with a perpendicular magnetic recording medium since such increases data storage capacity by enabling higher bit density.

8. Claims 27-33 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-24 of U.S. Patent No. 5,726,837. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following:

The only item lacking in the patented claims is the magnetic head being used in combination with a "perpendicular magnetic recording medium." Official notice is taken of the fact that it is notoriously old and well known in the art to use a magnetic head with a perpendicular magnetic recording medium in the same field of endeavor for the purpose of increasing data storage capacity by enabling higher bit density. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have claimed the magnetic head be used in combination with a perpendicular magnetic recording medium. The rationale is as follows:

One of ordinary skill in the art would have been motivated to have claimed the magnetic head be used in combination with a perpendicular magnetic recording medium since such increases data storage capacity by enabling higher bit density.

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9. Claims 27-33 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 6,011,674. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following:

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The only item lacking in the patented claims is the magnetic head being used in combination with a "perpendicular magnetic recording medium." Official notice is taken of the fact that it is notoriously old and well known in the art to use a magnetic head with a perpendicular magnetic recording medium in the same field of endeavor for the purpose of increasing data storage capacity by enabling higher bit density. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have claimed the magnetic head be used in combination with a perpendicular magnetic recording medium. The rationale is as follows:

One of ordinary skill in the art would have been motivated to have claimed the magnetic head be used in combination with a perpendicular magnetic recording medium since such increases data storage capacity by enabling higher bit density.

10. Claims 27-33 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-64 of U.S. Patent No. 6,278,593. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following:

The only item lacking in the patented claims is the magnetic head being used in combination with a "perpendicular magnetic recording medium." Official notice is taken of the fact that it is notoriously old and well known in the art to use a magnetic head with a perpendicular magnetic recording medium in the same field of endeavor for the purpose of increasing data storage capacity by enabling higher bit density. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have claimed the magnetic head be used in combination with a perpendicular magnetic recording medium. The rationale is as follows:

One of ordinary skill in the art would have been motivated to have claimed the magnetic head be used in combination with a perpendicular magnetic recording medium since such increases data storage capacity by enabling higher bit density.

11. Claims 27-33 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 6,483,677. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following:

The only item lacking in the patented claims is the magnetic head being used in combination with a "perpendicular magnetic recording medium." Official notice is taken of the fact that it is notoriously old and well known in the art to use a magnetic head with a perpendicular magnetic recording medium in the same field of endeavor for the purpose of increasing data storage capacity by enabling higher bit density. It would have been obvious to a person having ordinary skill in the art at the time the invention

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was made to have claimed the magnetic head be used in combination with a perpendicular magnetic recording medium. The rationale is as follows:

One of ordinary skill in the art would have been motivated to have claimed the magnetic head be used in combination with a perpendicular magnetic recording medium since such increases data storage capacity by enabling higher bit density.

12. Claims 27-33 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 6,687,099. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following:

The only item lacking in the patented claims is the magnetic head being used in combination with a "perpendicular magnetic recording medium." Official notice is taken of the fact that it is notoriously old and well known in the art to use a magnetic head with a perpendicular magnetic recording medium in the same field of endeavor for the purpose of increasing data storage capacity by enabling higher bit density. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have claimed the magnetic head be used in combination with a perpendicular magnetic recording medium. The rationale is as follows:

One of ordinary skill in the art would have been motivated to have claimed the magnetic head be used in combination with a perpendicular magnetic recording medium since such increases data storage capacity by enabling higher bit density.

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Pertinent Prior Art

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. This includes Akiyama et al. (US 4,593,332), which teaches a magneto-resistance effect film formed between a first non-magnetic metal layer (12) and a second non-magnetic metal layer (13), the magneto-resistance effect film includes a first ferromagnetic layer (11), a second ferromagnetic layer (11), and an intermediate insulating layer (22) formed between the first ferromagnetic layer and the second ferromagnetic layer, and the magneto-resistance effect film is arranged so that a tunnel current flows between the first ferromagnetic layer and the second ferromagnetic layer through the intermediate insulating layer; and Bhattacharyya et al. (US 4,881,143), which teaches a magneto-resistance effect film formed between a first non-magnetic metal layer (61) and a second non-magnetic metal layer (71), the magneto-resistance effect film includes a first ferromagnetic layer (67), a second ferromagnetic layer (71), and an intermediate insulating layer (69) formed between the first ferromagnetic layer and the second ferromagnetic layer.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig A. Renner whose telephone number is (571) 272-7580. The examiner can normally be reached on Tuesday-Friday 9:00 AM - 7:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Craig A. Renner Primary Examiner Art Unit 2652 Page 10

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